

Cutaneous vasculitis presenting on the penis

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Abstract

Cutaneous vasculitis is frequently located on the lower limbs. We describe a patient who developed palpable purpura affecting the penis as the presenting sign of more widespread lesions of Henoch-Schönlein purpura.

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Introduction

The term cutaneous vasculitis embraces a group of conditions characterised by typical histological appearances involving small and medium sized vessels often resulting in palpable purpura. The commonest sites of involvement are in areas of stasis such as the lower legs. The classification of vasculitis can be considered in terms of the histological pattern or morphology. The association, however, of purpura predominantly on the lower legs and buttocks usually with arthritis and/or gastrointestinal symptoms is characteristic of Henoch-Schönlein purpura (HSP). We report a patient with palpable purpura localised to an unusual site at presentation.

Case report

A 19 year old male heterosexual presented to the Genitourinary Medicine clinic in September 1992 with a two month history of an asymptomatic rash on his penis following a recent holiday in Malta with his girlfriend. He admitted to more frequent sexual intercourse during the week prior to the onset of the rash. He had no previous history of sexually transmitted infections. There was no history of a preceding sore throat. Apart from mild arthralgia of both knees he was otherwise well. His only regular medication was one tablet of vitamin C daily.

Examination at presentation revealed purpuric lesions, many of which were palpable, on the skin of the shaft of the penis (fig). The glans penis, scrotum and rest of the skin were not involved. One month later he was seen by a dermatologist with new areas of palpable purpura involving the lower legs, buttocks and forearms. The lesions on his penis were unchanged.

Tests for gonorrhoea, chlamydia, non-specific urethritis and syphilis were negative. A full blood count and biochemical profile were normal. His ESR was elevated at 16mm/h (normal range 1-7 mm/h). Antinuclear antibody and rheumatoid factor were negative. Levels of serum complement C3, C4 and CH50, circulating immune complexes and immunoglobulins were all normal. Cryoglobulins were not detected and the anti-neutrophil cytoplasmic antibody was negative. Repeated urinalysis was normal. A skin biopsy from a palpable purpuric lesion on his buttock revealed an upper dermal perivascular neutrophil-rich infiltrate with fibrinoid necrosis and red cell extravasation. These features were consistent with a leucocytoclastic vasculitis. Direct immunofluorescence showed perivascular deposition of IgA, IgM and C3 typical of HSP.

The purpura resolved spontaneously over the next month; however, six weeks later, following a sore throat he developed further crops of palpable purpura again initially on the penis. This second episode cleared after treatment with oral penicillin.

Discussion

Classical features of HSP include a palpable purpuric rash on the lower legs and buttocks, arthritis, gastrointestinal symptoms and more seriously renal involvement. It is seen most commonly in children between 3-14 years and is thought to be an immune complex



Palpable purpura involving the dorsum of the penis

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mediated disease.^{1,2} Although HSP was first described before the advent of immunopathological techniques the presence of IgA on direct immunofluorescence is regarded by many as a hallmark of this syndrome.

This case presented with the unusual manifestation of isolated palpable purpura on the shaft of the penis and a biopsy of subsequent purpura on the buttock revealed typical features of HSP. Scrotal haemorrhage and swelling has been described previously in association with penile ecchymosis as a complication of HSP³; however, there was no evidence of scrotal involvement in our patient. Furthermore neither of the reported cases presented with penile lesions, as in our case. It is unclear why there are specific cutaneous sites of predilection in HSP. Trauma may act as a trigger in non-dependent sites and the history of increased frequency of sexual intercourse by our patient, prior to the onset of penile lesions, would support this hypothesis.

Episodes of purpura usually last less than 6 weeks although in one series 27% of patients were still getting new lesions one year later.⁴ The purpura in our patient cleared from his legs and buttocks within 6 weeks but fresh

lesions reappeared following a sore throat, a pattern which is well recognised.¹ Interestingly, however, the penile lesions were present for over four months before they resolved. Furthermore the penis was the presenting site during both attacks of purpura. There does not, however, appear to be a correlation between severity, duration or extent of cutaneous involvement and systemic manifestations.⁴ Treatment is usually conservative although it is mandatory to perform regular urinalysis to detect and monitor any renal involvement.

In summary this case illustrates that cutaneous vasculitis may present to the genitourinary medicine clinic with penile involvement. It adds to the list of cutaneous disorders that may present on the genitalia.

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